

# Quick Guide for Accessing ECOSTRESS Swath Data in NASA Earthdata Search

*Updated November 2022*

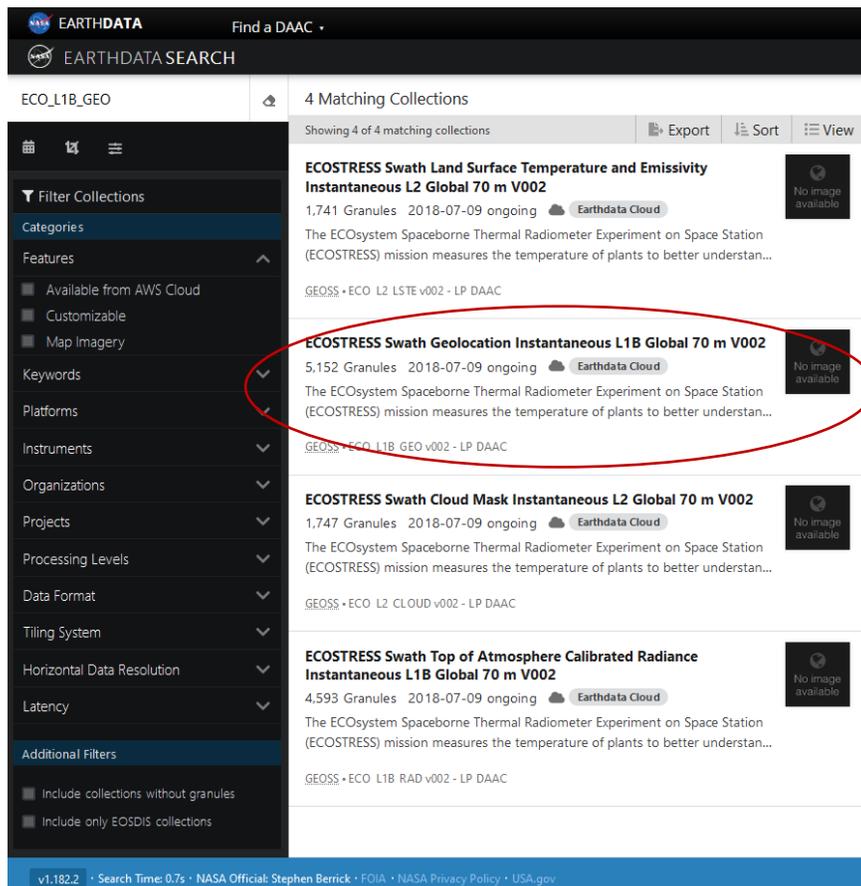
## Contents

How to search and download ECOSTRESS swath data in NASA Earthdata Search .....	2
Searching and downloading ECOSTRESS data products from a specific orbit number.....	9

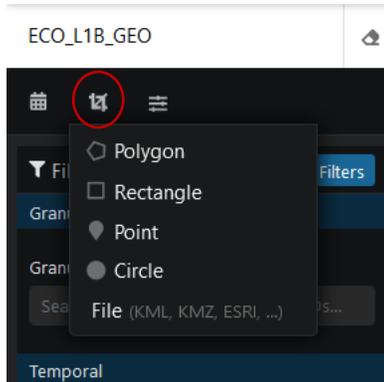
# How to search and download ECOSTRESS swath data in NASA Earthdata Search

ECO\_L1B\_RAD, ECO\_L1B\_ATT, ECO\_L2\_LSTE, and ECO\_L2\_CLOUD swath data products cannot be searched by spatial extent and must be searched by orbit number instead. To find a data product over an area of interest, start with the ECO\_L1B\_GEO product as it can be searched spatially. Once an ECO\_L1B\_GEO granule is selected, it can be downloaded for georeferencing the L1B and/or L2 data products via the [Swath to Grid python script](#). The orbit number in the ECO\_L1B\_GEO granule is then used to search for the specific scene that matches the L1B and L2 products. The following steps will guide you through this process.

1. Go to NASA Earthdata Search - <https://search.earthdata.nasa.gov/>.
  - Select **Earthdata Login** in the upper right corner to sign in using your Earthdata Login [account](#).
2. In the search field, type the shortname of the data product, such as "ECO\_L1B\_GEO."
3. Select ECO\_L1B\_GEO dataset from list of returned collections.



4. Desired granules can be found by utilizing the spatial filtering tools over a specified area of interest (AOI).



5. In this example the AOI is Lake Tahoe, and a bounding box was drawn over the area to locate granules that intersect this area or are within the bounding box.

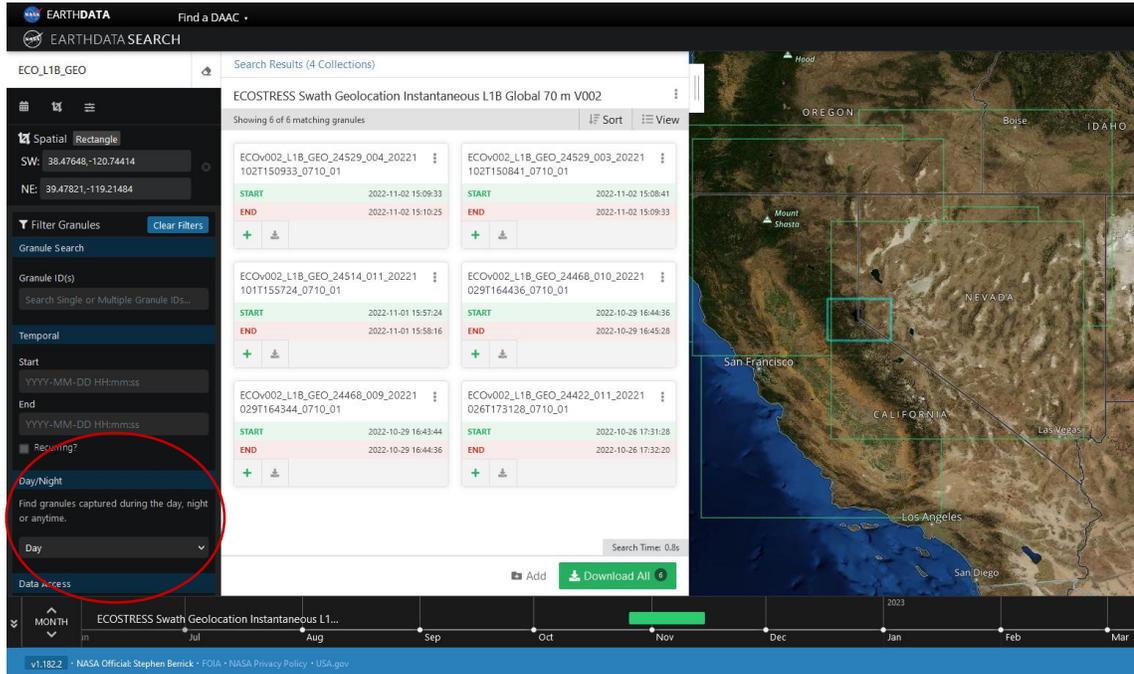


6. The search results will list granules that intersect with the AOI.

The screenshot displays the NASA Earthdata Search interface. On the left, a dark sidebar contains filtering options: Spatial (Rectangle), Filter Granules (with a 'Clear Filters' button), Granule Search (with a search input), Temporal (with Start and End date pickers and a 'Recurring?' checkbox), Day/Night (with a 'Find granules captured during the day, night or anytime.' section and an 'Anytime' dropdown), and Data Access. The main panel shows search results for 'ECOSTRESS Swath Geolocation Instantaneous L1B Global 70 m V002'. It indicates 'Showing 20 of 35 matching granules' and lists several granules in a grid. Each granule entry includes its ID, start and end times, and download options. At the bottom, there is a 'Download All' button with a '35' count and a timeline navigation bar for the months of July, August, September, October, and November. The footer contains version information 'v1.182.2' and links to 'NASA Official: Stephen Berrick', 'FOIA', 'NASA Privacy Policy', and 'USA.gov'.

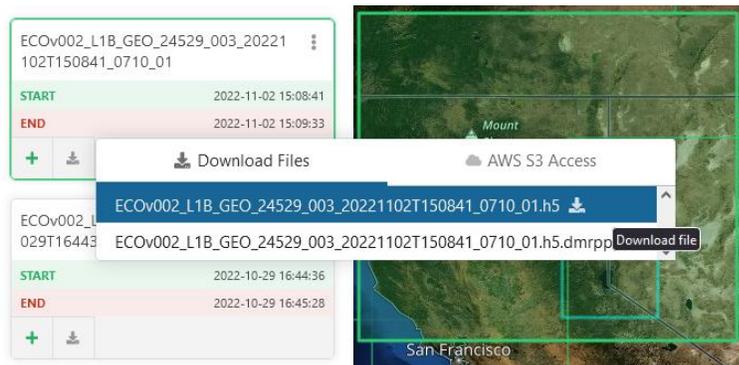
- The filtering options on the left side can be used to narrow the granule selection with Granule Search, Temporal, Day/Night, Data Access, Orbit Number, Equatorial Crossing Longitude, and Equatorial Crossing Date.

7. In the example, a daytime image was chosen utilizing the Day/Night filter.

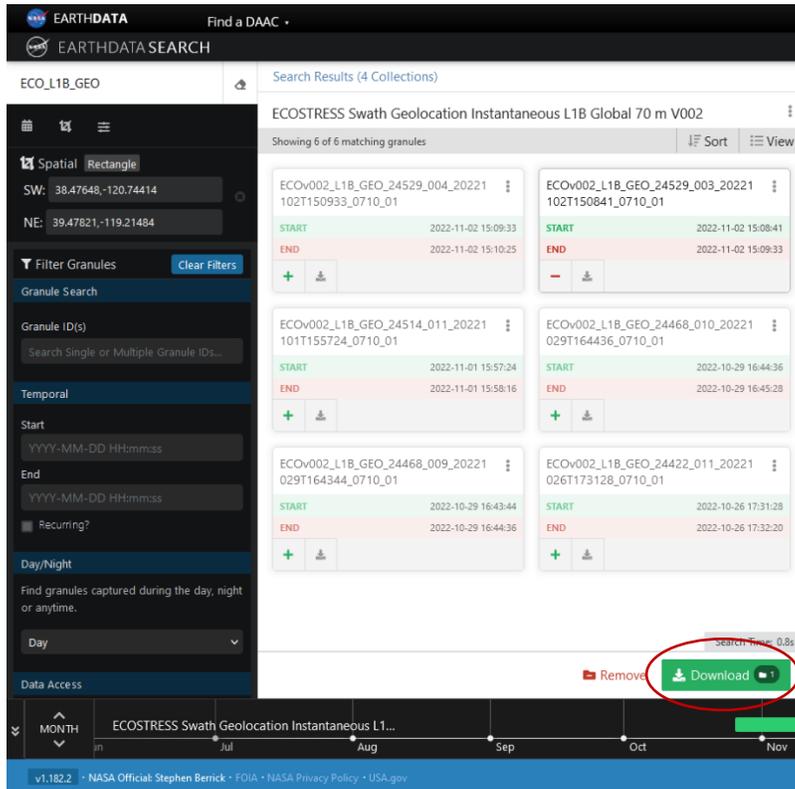


8. To choose a granule for download, select the **+** to add the granule to a project for download.

- A single granule can alternatively be downloaded by selecting **+** and downloading from the granule listing.



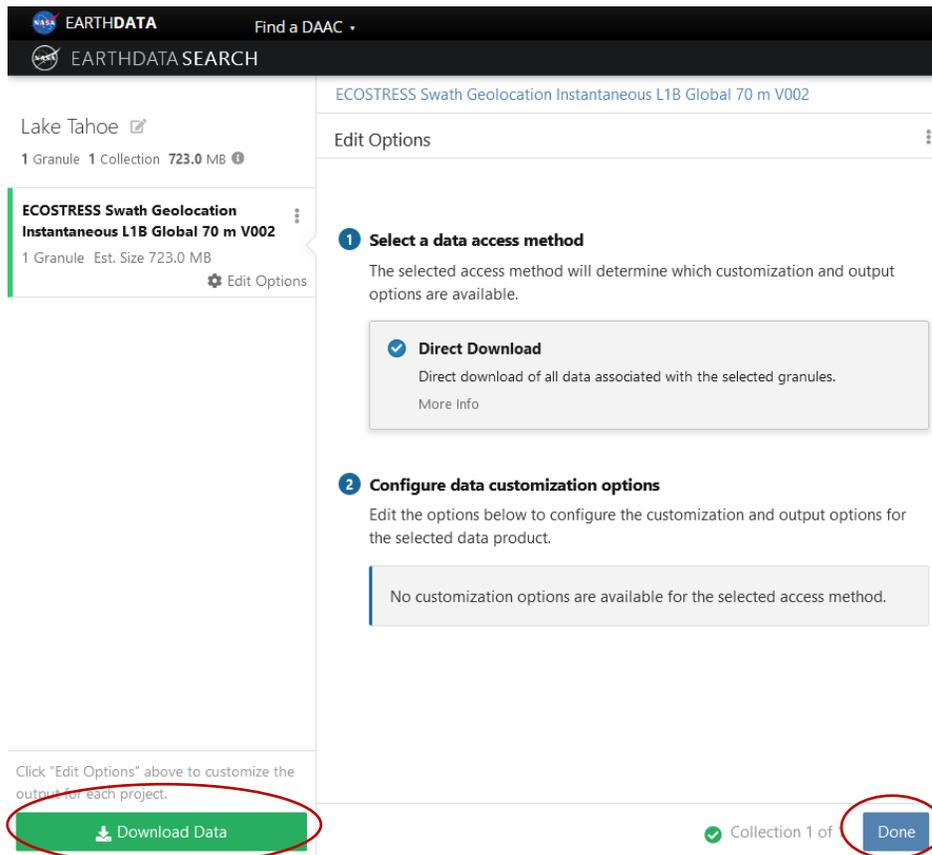
9. When a granule is selected, it will be added to a project. Select  to proceed to the Project page.



The screenshot shows the EarthData Search interface. The search results are for 'ECOSTRESS Swath Geolocation Instantaneous L1B Global 70 m V002'. The interface displays six granules, each with a unique ID, start and end times, and a download button. A red circle highlights the 'Download' button for the first granule.

Granule ID	Start Time	End Time	Action
ECOv002_L1B_GEO_24529_004_20221_102T150933_0710_01	2022-11-02 15:09:33	2022-11-02 15:10:25	+ Download
ECOv002_L1B_GEO_24529_003_20221_102T150841_0710_01	2022-11-02 15:08:41	2022-11-02 15:09:33	- Download
ECOv002_L1B_GEO_24514_011_20221_101T155724_0710_01	2022-11-01 15:57:24	2022-11-01 15:58:16	+ Download
ECOv002_L1B_GEO_24468_010_20221_029T164436_0710_01	2022-10-29 16:44:36	2022-10-29 16:45:28	+ Download
ECOv002_L1B_GEO_24468_009_20221_029T164344_0710_01	2022-10-29 16:43:44	2022-10-29 16:44:36	+ Download
ECOv002_L1B_GEO_24422_011_20221_026T173128_0710_01	2022-10-26 17:31:28	2022-10-26 17:32:20	+ Download

10. Select  and then .



**EARTHDATA** Find a DAAC

**EARTHDATA SEARCH**

Lake Tahoe 

1 Granule 1 Collection 723.0 MB

**ECOSTRESS Swath Geolocation Instantaneous L1B Global 70 m V002**

1 Granule Est. Size 723.0 MB  Edit Options

ECOSTRESS Swath Geolocation Instantaneous L1B Global 70 m V002

Edit Options

**1 Select a data access method**

The selected access method will determine which customization and output options are available.

**Direct Download**

Direct download of all data associated with the selected granules.

[More Info](#)

**2 Configure data customization options**

Edit the options below to configure the customization and output options for the selected data product.

No customization options are available for the selected access method.

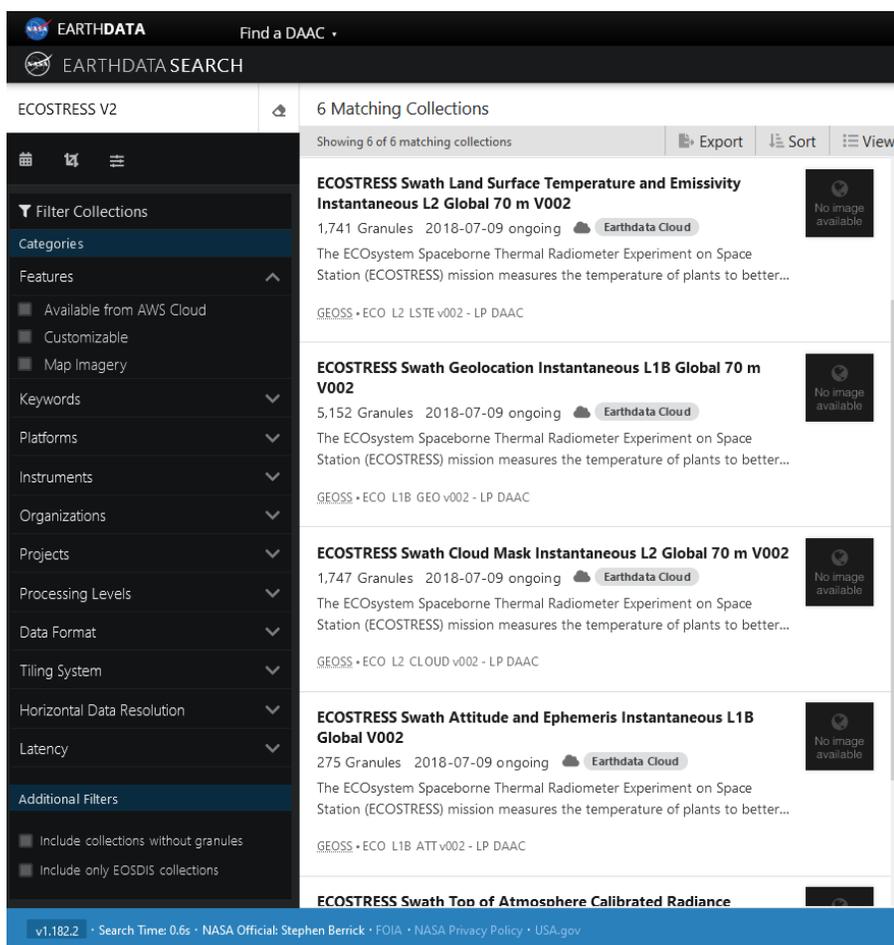
Click "Edit Options" above to customize the output for each project.



# Searching and downloading ECOSTRESS data products from a specific orbit number

1. To find a matching scene of the corresponding L1B or L2 data products, locate the orbit number and scene in the ECO\_L1B\_GEO granule.  
ECOv002\_L1B\_GEO\_24529\_003\_20221102T150841\_0710\_01  
24529 = orbit  
003 = scene
2. In the search field, type the shortname of the data product, such as "ECO\_L1B\_RAD," or simply search "ECOSTRESS v2." Select desired dataset from the list of returned collections.



3. In this example ECO\_L1B\_RAD was selected from the list.

The screenshot displays the EarthData Search interface. At the top, the NASA EarthData logo and 'Find a DAAC' are visible. The search results are for 'ECOSTRESS Swath Top of Atmosphere Calibrated Radiance Instantaneous L1B Global 70 m V002'. The interface shows 47,788 matching granules. A sidebar on the left contains filter options: Granule Search, Temporal (Start, End, Recurring?), Day/Night (Anytime), and Data Access. The main area displays a grid of granule cards, each with a unique ID, start/end times, and download options. At the bottom, there are subscription and download buttons, and a navigation bar with a timeline view.

Search Results (8 Collections)

ECOSTRESS Swath Top of Atmosphere Calibrated Radiance  
Instantaneous L1B Global 70 m V002

Showing 20 of 47,788 matching granules

Granule ID	START	END
ECOV002_L1B_RAD_24721_001_202 21114T234817_0710_02	2022-11-14 23:48:17	2022-11-14 23:49:08
ECOV002_L1B_RAD_24719_015_202 21114T213047_0710_02	2022-11-14 21:30:47	2022-11-14 21:30:56
ECOV002_L1B_RAD_24719_014_202 21114T212955_0710_02	2022-11-14 21:29:55	2022-11-14 21:30:46
ECOV002_L1B_RAD_24719_012_202 21114T212755_0710_02	2022-11-14 21:27:55	2022-11-14 21:28:46
ECOV002_L1B_RAD_24719_011_202 21114T212703_0710_02	2022-11-14 21:27:03	2022-11-14 21:27:54
ECOV002_L1B_RAD_24719_009_202 21114T211944_0710_02	2022-11-14 21:19:44	2022-11-14 21:20:35
ECOV002_L1B_RAD_24719_007_202		
ECOV002_L1B_RAD_24719_005_202		

Subscriptions Add Download All 47,788

MONTH ECOSTRESS Swath Top of Atmosphere Calibrate... Jul Aug Sep Oct

v1.182.2 · NASA Official: Stephen Berrick · FOIA · NASA Privacy Policy · USA.gov

- On the left side, scroll down on the filter options and locate the “Orbit Number” field.

The screenshot shows the EarthData Search interface. On the left, the filter options are visible, with the "Orbit Number" field highlighted by a red circle. The search results on the right show a list of granules for "ECOSTRESS Swath Top of Atmosphere Calibrated Radiance Instantaneous L1B Global 70 m V002". The granules are displayed in a grid format, each with a unique ID, start and end times, and download options.

Granule ID	START	END
ECOV002_L1B_RAD_24721_001_202 21114T234817_0710_02	2022-11-14 23:48:17	2022-11-14 23:49:08
ECOV002_L1B_RAD_24719_015_202 21114T213047_0710_02	2022-11-14 21:30:47	2022-11-14 21:30:56
ECOV002_L1B_RAD_24719_014_202 21114T212955_0710_02	2022-11-14 21:29:55	2022-11-14 21:30:46
ECOV002_L1B_RAD_24719_012_202 21114T212755_0710_02	2022-11-14 21:27:55	2022-11-14 21:28:46
ECOV002_L1B_RAD_24719_011_202 21114T212703_0710_02	2022-11-14 21:27:03	2022-11-14 21:27:54
ECOV002_L1B_RAD_24719_009_202 21114T211944_0710_02	2022-11-14 21:19:44	2022-11-14 21:20:35
ECOV002_L1B_RAD_24719_007_202		
ECOV002_L1B_RAD_24719_005_202		

- In this field enter the orbit number from the above ECO\_L1B\_GEO granule for both the “Minimum” and “Maximum.”

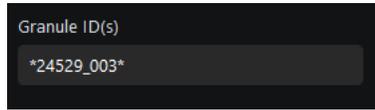
The close-up shows the "Orbit Number" filter section. The "Minimum" and "Maximum" input fields both contain the value "24529".

6. Now scroll through the search results to find the granule that has the matching scene, in this case "003."

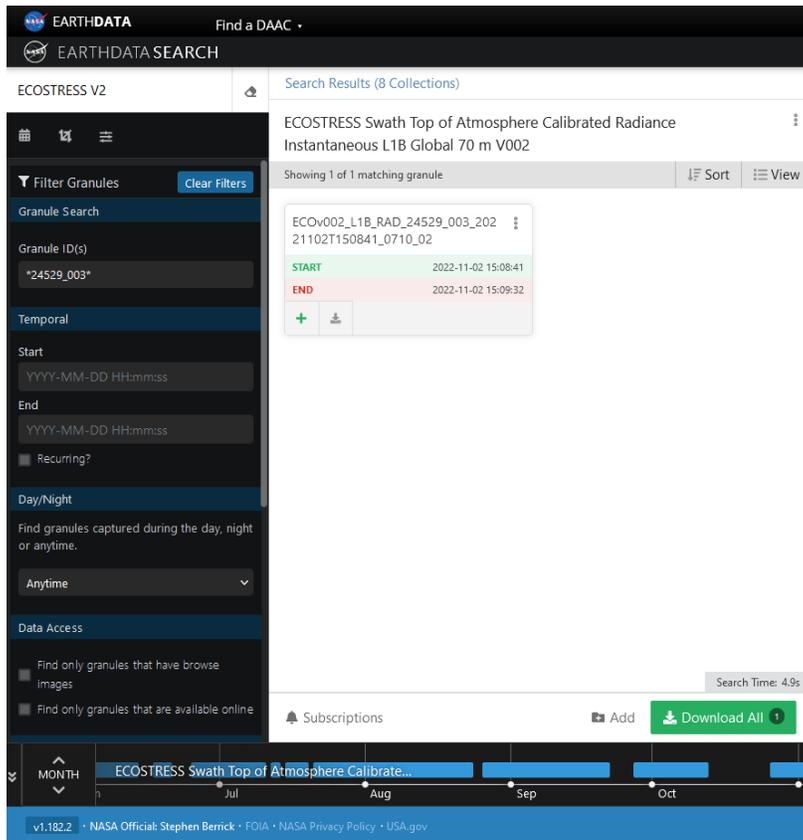
The screenshot displays the EarthData Search interface for ECOSTRESS V2. The search results are for "ECOSTRESS Swath Top of Atmosphere Calibrated Radiance Instantaneous L1B Global 70 m V002". The interface shows 17 matching granules. The granule ID "21102T150841\_0710\_02" is circled in red, and the "003" scene number is highlighted. The interface also includes filters for Data Access, Orbit Number, Equatorial Crossing Longitude, and Equatorial Crossing Date. A "Download All" button is visible at the bottom right.

Granule ID	START	END
ECOv002_L1B_RAD_24529_005_202 21102T151025_0710_02	2022-11-02 15:10:25	2022-11-02 15:11:16
ECOv002_L1B_RAD_24529_004_202 21102T150933_0710_02	2022-11-02 15:09:33	2022-11-02 15:10:24
ECOv002_L1B_RAD_24529_003_202 21102T150841_0710_02	2022-11-02 15:08:41	2022-11-02 15:09:32
ECOv002_L1B_RAD_24529_002_202 21102T150749_0710_02	2022-11-02 15:07:49	2022-11-02 15:08:40
ECOv002_L1B_RAD_24529_001_202 21102T144048_0710_02	2022-11-02 14:40:48	2022-11-02 14:41:30

- An alternative search can be done for the orbit and scene by entering \*24529\_003\* in the Granule ID(s) field.



7. Once the scene is found, either select the to add to the project to be downloaded from a project or to download from the "Search Results" screen.



8. Once both the ECO\_L1B\_GEO and ECO\_L1B\_RAD files have been downloaded, use the [ECOSTRESS Swath to Grid Conversion Script](#) to create a projected GeoTIFF of the ECO\_L1B\_RAD data product.